Sectors 1, 2, 3, and 4



Synchrotron Radiation Instrumentation CAT

Overview

SRI-CAT is organized into developers and scientific members, with the developers coming from the Experimental Facilities Division and the User Program Division of the APS, as well as from Purdue University, University of Houston, National Institute of Science and Technology, Lawrence Berkeley National Laboratory, Stanford Synchrotron Radiation Laboratory, Cornell High Energy Synchrotron Source, and many Australian institutions coordinated through the Australian Synchrotron Research Program (ASRP). Scientific members whose interests match those of the developers are drawn from the synchrotron user community.

Research Focus

The principal mission of SRI-CAT is to develop new and unique forefront instruments and techniques to advance the use of synchrotron radiation. To that end, research programs involve the design, construction, and operation of standard and specialized insertion devices; diagnostics of radiation from these insertion devices; development of high-heat-load optics; the design, construction, and testing of various standard and modular beamline components; and the development of strategic instruments and techniques.

Among those instruments/capabilities are microbeam techniques, nuclear resonant spectroscopy, coherence-based techniques, the development of 0.5 to $4~\rm keV$ scientific capabilities, the development of scientific capabilities at high energies (> $50~\rm keV$), development of time-resolved instrumentation and techniques, the development of ultrahigh-resolution inelastic scattering techniques, and the development of instrumentation and techniques for application of variably polarized x-rays from $0.5~\rm keV$ to $100~\rm keV$.

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